21HH-6.03 Minimum Technical Standards for Surveys (Field & Office).

- (1) In order for a survey to be acceptable in terms of this rule, such a survey must be full and complete and shall be certified by the surveyor in responsible charge as meeting these minimum technical standards set forth by the Florida Board of Land Surveyors, pursuant to Section 472.07, Florida Statutes.
- (2) All measurements made in the field must be in accordance with the United States standard, using either feet or metric, and made with a transit and steel tape, or other devices with an equivalent or higher degree of accuracy. With the exception of geodetic surveys, all measurements shall refer to either the horizontal or vertical plane. All computed distances and bearings must be supported by careful and accurate field measurements.
- (3) Any drawing of a survey must bear the name,
- firm or residence address, city, certificate number, and signature of the land surveyor in responsible charge, and date of the filed survey as set forth in Sections 472.021 and 472.025, F. S. Copies of survey drawings shall have a raised embossed seal of the land surveyor in responsible charge.
- (4) A reference to all bearings shown must be clearly stated, i.e., whether to "True North"; "Grid North as established by the NOS"; "Assumed North based on a bearing for a well defined line, such as the center line of a road or right of way, etc."; "a Deed Call for a particular line"; or "the bearing of a particular line shown upon a plat." References to Magnetic North should be avoided except in the cases where a comparison is necessitated by a Deed Call. Where bearings are recited in the deed description, or on an original plat of land being surveyed, a comparison of the deed or plat bearings with the bearings used shall be shown on all courses. In all cases, the bearings used shall be referenced to some well-established line.
- (5) A designated "north arrow" and scale of the map shall be prominently shown upon the drawing.
- (6) The survey drawing must be in complete accord with the real property description shown thereon or attached thereto; any discrepancies between the survey drawing and the description must be shown upon the drawing. When a new parcel is being created reference will be made on the survey drawing to the closest government corner or land line or recorded plat. Where evidence of inconsistencies is found, such as: overlapping descriptions, hiatuses; excess or deficiency; erroneously located boundary lines or monuments; or where any doubt as to the location on the ground of survey lines or property rights exists, the nature of the inconsistencies should be shown upon the drawing.
- (7) All angles shall be shown directly on the drawing or by bearings or azimuths. Where lines are curved, the significant elements of the curve shall be shown upon the drawing. However, when intersecting lines are non-radial, no less than the delta, radius, and arc, and chord bearing or angle shall be shown upon the drawing.

(8) In all areas where recorded lots and blocks are established, the measured distances to the nearest intersection of a street or right of way shall be shown upon the drawing. Measured and plat distances to intersecting streets or rights of way in both directions shall be shown if either of the measured distances vary significantly from the original plat. If because of unusual block lengths, this is not practical, distances to other identifiable survey points may be used.

(9) Surveys of parcels described by metes and bounds within a tract of land shall show the relationship of those parcels to at least one established identifiable real property corner. Survey drawings shall show all information called for in the property description, such as: point of commencement; course bearings; distances; and

point of beginning.

(10) If a survey is of all, or any part, of a lot(s) which is part of a recorded subdivision, lot and block numbers or other designations including those of adjoining lots and the block number must be shown upon the drawing, either on the detailed survey portion or on a location map.

(11) If a survey is part of a lot(s), which is part of a recorded subdivision, all dimensions called for in the property description of the parcel surveyed and the excluded part of the lot(s) shall be shown upon

the drawing.

(12) All recorded public and private rights of way shown on recorded plats adjoining or across the land surveyed shall be located and shown upon the drawing. If streets or street rights of way abutting the land surveyed are not physically open, a note to this effect shall be shown upon the drawing.

(13) Open and notorious evidence of boundary lines whether fences, walls, buildings, monuments or otherwise, shall be shown upon the drawing.

- (14) All visible encroachments onto or from adjoining property or abutting streets must be indicated, with the extent of such encroachment shown or noted upon the drawing. In all cases where foundations may encroach and are beneath the surface, failure to determine their location shall be noted upon the drawing.
- (15) Open and notorious evidence of easements or rights of way on or across the lands surveyed shall be located or noted and shown upon the drawing. If location of easements or rights of way of record, other than those on record plats, is required, this information must be furnished to the land surveyor.
- (16) Location of fixed improvements pertinent to the survey shall be shown upon the drawing in reference to the boundaries, either directly or to offset lines. If fixed interior improvements are not located, a note to this effect shall be shown upon the drawing.
- (17) Cemeteries and burial grounds located within the premises shall be located and shown upon the drawing if open and notorious, or if knowledge of their existence and location is furnished to the land surveyor.

- (18) The surveyor shall make a determination of the correct position of the boundary of the real property and shall set monuments, as defined herein, unless monuments already exist at such corners. All monuments, found or placed, must be described on the survey drawing with data given to show their location upon the ground in relation to the boundary lines. When the property corner cannot be set, a witness monument shall be placed and so noted upon the survey drawing.
- (19) Every boundary monument or witness monument set shall:
 - (a) Be composed of a durable material;
 - (b) Have a minimal length of 18 inches;
- (c) Have a minimum cross-section area of material of 0.2 square inches;
- (d) Be identified with durable marker or cap bearing either the Florida registration number of the land surveyor in responsible charge, the certificate of authorization number of the survey firm; or name of the survey firm;
- (e) Be detectable with conventional instruments for finding ferrous or magnetic objects.

When a case arises due to physical obstructions so that neither a boundary monument nor a witness monument can practicably be set in accordance with (a)—(e), then alternative monumentation which is durable and identifiable shall be established for this particular situation.

(20) The accuracy of the measurements for the survey shall be based upon the type of survey and the current or expected use of the land. The accuracy of the measurements thus performed shall be substantiated by the computations of a closed traverse; the relative error of closure permissible shall be no greater than the following:

Commercial/High

Risk Areas 1 foot in 10,000 feet
Suburban 1 foot in 7,500 feet
Rural 1 foot in 5,000 feet
Specific Authority 472.027 FS. Law Implemented
472.027 FS. History—New 9-1-81, Amended 7-29-85.